

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NM-417-AD; Amendment 39-12963; AD 2002-23-19]

RIN 2120-AA64

Airworthiness Directives; Dassault Model Falcon 2000 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to all Dassault Model Falcon 2000 series airplanes, and certain Dassault Model Falcon 900EX and Mystere Falcon 900 series airplanes. That AD currently requires repetitive operational tests of the flap asymmetry detection system to verify proper functioning, and repair, if necessary; repetitive replacement of the inboard flap jackscrews with new or reconditioned jackscrews; and repetitive measurement of the screw/nut play of the jackscrews on the inboard and outboard flaps to detect discrepancies, and corrective action if necessary. This amendment removes Model 900EX and Mystere Falcon 900 series airplanes from the applicability of the existing AD. For Model Falcon 2000 series airplanes, this amendment also adds certain repetitive measurements, deletes certain repetitive measurements, and extends the interval for repetitive replacement of certain jackscrews. This amendment is prompted by issuance of mandatory continuing airworthiness information by a foreign civil airworthiness authority. The actions specified by this AD are intended to prevent jamming of the flap jackscrews during the approach to landing, which could result in inability to move the flaps or an asymmetric flap condition, and consequent reduced controllability of the airplane.

DATES: Effective January 6, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 6, 2003.

ADDRESSES: The service information referenced in this AD may be obtained from Dassault Falcon Jet, P.O. Box 2000, South Hackensack, New Jersey 07606. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1137; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 99-14-07, amendment 39-11218 (64 FR 36561, July 7, 1999), was published in the Federal Register on February 15, 2002 (67 FR 7093). The proposal is applicable to all Dassault Model Falcon 2000 series airplanes; whereas, AD 99-14-07 was applicable to all Dassault Model Falcon 2000 series airplanes, and certain Dassault Model Falcon 900EX and Mystere Falcon 900 series airplanes. The action proposed to supersede AD 99-14-07 to continue to require the following:

- Repetitive operational tests of the flap asymmetry detection system to verify proper functioning, and repair, if necessary;
- Repetitive replacement of the inboard flap jackscrews with new or reconditioned jackscrews; and
- Repetitive measurement of the screw/nut play of the outboard and center flap jackscrews to detect discrepancies, and corrective action, if necessary.

The action also proposed to remove Model 900EX and Mystere Falcon 900 series airplanes from the applicability of the existing AD. For Model Falcon 2000 series airplanes, the action also proposed to add certain repetitive measurements, delete certain repetitive measurements, and extend the interval for repetitive replacement of certain jackscrews.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request To Add Part Numbers

One commenter requests adding "Amdt A" to the jackscrew part numbers (P/Ns) that are already specified by the proposed AD (i.e., P/Ns 5318-1, 1-5319-1, and 2-5319-1). We concur with the commenter's request, noting that the designation of "Amdt A" simply indicates a reconditioned jackscrew that has been reidentified. As such, we have determined that this change further clarifies, but does not change, the requirements of this AD. In light of this, we have added P/Ns 5318-1 Amdt A, 1-5319-1 Amdt A, and 2-5319-1 Amdt A, as appropriate, for those P/Ns that have been reconditioned and reidentified. We have revised the applicable P/Ns in paragraphs (b) through (h) of the final rule accordingly.

Request To Revise Airplane Maintenance Manual References

The same commenter requests that the final rule reference only Chapter 5-40 of the Airplane Maintenance Manual (AMM) for the operational testing, inspections, and replacement action. The commenter adds that operators are managing the jackscrew life limits and inspections, and have planned the spares and maintenance inspections based on the actions required by AD 99-14-07. The commenter considers that the corrective action can be accomplished only per Chapter 5-40 of the AMM.

We do not concur with the commenter's request that only Chapter 5-40 of the AMM should be cited in the final rule as the appropriate source of service information for the actions required by the AD. In order to accomplish the requirements of the AD, it is necessary to cite all of the service information references that were included in the proposed AD, which include various AMMs and Temporary Revisions. No change to the final rule is necessary in this regard.

Explanation of Changes To Clarify/Revise the Final Rule

We have made the following additional changes to the final rule:

- In the Summary section of the final rule, we have clarified the requirements for the repetitive measurement action. The Summary section of the proposed AD specifies repetitive measurement of the screw/nut play of the "outboard and center flap" jackscrews. However, the repetitive measurement action in paragraph (f) of the proposed AD specifies the location of the jackscrew on the "outboard flaps," and paragraph (g) of the proposed AD specifies the "inboard flap." For this reason, we have revised the Summary of the final rule to specify measurement of the jackscrews on the "inboard and outboard flaps." The exact location of the affected jackscrews is specified in paragraphs (f) through (h) of the final rule.
- Although paragraphs (c) and (e) of the proposed AD specify a reconditioned jackscrew having P/N 5318-1, we have revised those paragraphs in the final rule to clarify that the correct P/N of a reconditioned jackscrew is P/N 5318-1 Amdt A.
- Although paragraphs (c)(1) and (e)(1) and Note 2 of the proposed AD did not include the date of the referenced service bulletin, we have added the date (September 16, 1999) in those paragraphs in the final rule.
- In the proposed AD, paragraph (c)(2) specifies that the jackscrew is located on the inboard flap in the "inboard" position, and paragraph (e)(2) specifies the location of the jackscrew in the "outboard" position. However, because the jackscrew could be located in either the inboard or outboard position, we have determined that the requirements in those paragraphs are unnecessary and should be deleted. In light of this, we have revised the final rule and renumbered the subparagraphs accordingly.
- In paragraph (d) of the final rule, we have clarified the location of the middle jackscrew by specifying that the jackscrew is located on the inboard flap and in the outboard position. We have also clarified the location of the jackscrew in paragraph (e) of the final rule.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Interim Action

This AD is considered to be interim action. The manufacturer has advised that it is currently developing a modification that will positively address the unsafe condition which is the subject of this AD. Once this modification is developed, approved, and available, the FAA may consider additional rulemaking.

Cost Impact

There are approximately 45 airplanes of U.S. registry that will be affected by this AD.

The costs of performing actions required by AD 99-14-07 and retained in this AD for Falcon 2000 series airplanes are described below.

The repetitive operational test of the flap asymmetry detection system takes approximately 1 work hour per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the repetitive operational test on U.S. operators is estimated to be \$2,700, or \$60 per airplane, per test cycle.

The measurement of the screw/nut play in the flap jackscrews takes approximately 8 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the measurement on U.S. operators is estimated to be \$21,600, or \$480 per airplane, per measurement cycle.

The repetitive replacement of jackscrews takes approximately 8 work hours per airplane to accomplish, at an average labor rate of \$60 per work hour. New jackscrews cost approximately \$21,200 per airplane. However, the AD permits a one-time reconditioning and re-use of jackscrews, which could reduce the cost of parts by 50%. Based on these figures, the cost impact of replacement of jackscrews on U.S. operators is estimated to be between \$498,600 and \$975,600, or between \$11,080 and \$21,680 per airplane, per replacement cycle.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing amendment 39-11218 (64 FR 36561, July 7, 1999), and by adding a new airworthiness directive (AD), amendment 39-12963, to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.airweb.faa.gov/rgl"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-23-19 Dassault Aviation (Formerly Avions Marcel Dassault-Breguet Aviation (AMD/BA)): Amendment 39-12963; Docket 2000-NM-417-AD. Supersedes AD 99-14-07, Amendment 39-11218.

Applicability: All Model Falcon 2000 series airplanes, certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (i)(1) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent jamming of the flap jackscrews during the approach to landing, which could result in the inability to move the flaps or an asymmetric flap condition, and consequent reduced controllability of the airplane, accomplish the following:

Repetitive Operational Test

(a) Within 5 flight cycles after August 11, 1999 (the effective date of AD 99-14-07, amendment 39-11218): Perform an operational test of the flap asymmetry detection system to ensure that the system is functioning correctly, in accordance with the procedures specified in Dassault Falcon 2000 Airplane Maintenance Manual (AMM) 27-502, dated November 1995. Prior to further flight, repair any discrepancy detected, in accordance with a method approved by the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate; or the Direction G[énéral]e de l'Aviation Civile (or its delegated agent). Repeat the operational test thereafter at intervals not to exceed 330 flight hours or 7 months, whichever occurs first.

Repetitive Replacement

(b) Prior to the accumulation of 1,000 total flight cycles on the inboard jackscrew located on the inboard flap in the inboard position, or within 25 flight cycles after August 11, 1999, whichever occurs later: Replace each jackscrew having part number (P/N) 5318-1 or 5318-1 Amdt A, which is located on the inboard flap in the inboard position, in accordance with Dassault Falcon 2000 AMM 27-510, dated November 1995. The replacement jackscrew may be new or may have been

reconditioned in accordance with paragraph (c) of this AD. Repeat the replacement of a jackscrew having P/N 5318-1 or 5318-1 Amdt A thereafter at intervals not to exceed 1,000 flight cycles on the jackscrew located on the inboard flap in the inboard position.

(c) A jackscrew having P/N 5318-1 and located on the inboard flap in the inboard position may be replaced by a reconditioned jackscrew having P/N 5318-1 Amdt A, provided that all of the conditions specified in paragraphs (c)(1) and (c)(2) of this AD are met.

(1) The jackscrew has been reconditioned and reidentified as P/N 5318-1 Amdt A, in accordance with Dassault Service Bulletin AVIAC 5318-27-01, dated September 16, 1999.

(2) The jackscrew has been reconditioned only one time.

(d) Prior to the accumulation of 2,200 total flight cycles on the middle jackscrew located on the inboard flap and in the outboard position, or within 25 flight cycles after August 11, 1999, whichever occurs later: Replace each jackscrew having P/N 5318-1 or 5318-1 Amdt A on the inboard flap and in the outboard position, in accordance with Dassault Falcon 2000 AMM 27-510, dated November 1995. The replacement jackscrew may be new or may have been reconditioned in accordance with paragraph (e) of this AD. Repeat the replacement of a jackscrew having P/N 5318-1 or 5318-1 Amdt A thereafter at intervals not to exceed 2,200 flight cycles on the jackscrew located on the inboard flap and in the outboard position.

(e) A jackscrew having P/N 5318-1 and located on the inboard flap and in the outboard position may be replaced by a reconditioned jackscrew having P/N 5318-1 Amdt A, provided that all of the conditions specified in paragraphs (e)(1) and (e)(2) of this AD are met.

(1) The jackscrew has been reconditioned and reidentified as P/N 5318-1 Amdt A, in accordance with Dassault Service Bulletin AVIAC 5318-27-01, dated September 16, 1999.

(2) The jackscrew has been reconditioned only one time.

Repetitive Measurements

(f) Prior to the accumulation of 1,000 total flight cycles on the outboard jackscrews located on the outboard flaps, or within 25 flight cycles after August 11, 1999, whichever occurs later: Measure the screw/nut play of the jackscrews having P/N 1-5319-1 or 1-5319-1 Amdt A (on the left wing) and P/N 2-5319-1 or 2-5319-1 Amdt A (on the right wing) on the outboard flaps, in accordance with the procedures specified in Dassault Falcon 2000 AMM Temporary Revision (TR) 27-504, dated October 1998.

Note 2: Jackscrews having P/N 1-5319-1 or 2-5319-1 may be reconditioned in accordance with Dassault Service Bulletin AVIAC 5319-27-01, dated September 16, 1999. These jackscrews may be reconditioned and reused more than one time.

(1) If the initial measurement is equal to or less than 0.014 inch: Repeat the measurement thereafter at intervals not to exceed 330 flight hours or 7 months, whichever occurs first. If any repetitive measurement detects a nut/screw play greater than 0.014 inch, perform the actions required by paragraph (f)(2) of this AD.

(2) If the initial measurement is greater than 0.014 inch: Perform the actions required by paragraphs (f)(2)(i) and (f)(2)(ii) of this AD.

(i) Prior to further flight, replace the jackscrew with a new or reconditioned jackscrew, in accordance with Dassault Falcon 2000 AMM 27-510, dated November 1995.

(ii) Prior to the accumulation of 1,000 total flight cycles on the new or reconditioned jackscrew, perform a follow-on measurement of the screw/nut play in accordance with the procedures specified in Dassault Falcon 2000 AMM TR 27-504, dated October 1998.

(iii) If any follow-on measurement required by paragraph (f)(2)(ii) of this AD detects a nut/screw play equal to or less than 0.014 inch, perform the actions required by paragraph (f)(1) of this AD. If any follow-on measurement required by paragraph (f)(2)(ii) of this AD detects a nut/screw play greater than 0.014 inch, perform the actions required by paragraphs (f)(2)(i) and (f)(2)(ii) of this AD.

(g) Prior to the accumulation of 750 total flight cycles on the jackscrew located on the inboard flap in the inboard position, or within 25 flight cycles after the effective date of this AD, whichever occurs later: Measure the screw/nut play of the jackscrew having P/N 5318-1 or 1-5318-1 Amdt A, which is located on the inboard flap in the inboard position, to detect discrepancies, in accordance with the procedures specified in Dassault Falcon 2000 AMM TR 27-504, dated October 1998. If the measurement is greater than 0.014 inch, prior to further flight, replace the discrepant jackscrew with a new or reconditioned jackscrew, in accordance with Dassault Falcon 2000 AMM 27-510, dated November 1995.

(h) Prior to the accumulation of 1,000 total flight cycles on the jackscrew located on the inboard flap in the outboard position, or within 25 flight cycles after the effective date of this AD, whichever occurs later: Measure the screw/nut play of the jackscrew having P/N 5318-1 or 5318-1 Amdt A, which is located on the inboard flap in the outboard position, in accordance with the procedures specified in Dassault Falcon 2000 AMM TR 27-504, dated October 1998.

(1) If the initial measurement is equal to or less than 0.014 inch: Repeat the measurements thereafter at intervals not to exceed 330 flight hours or 7 months, whichever occurs first. If repetitive measurement detects a nut/screw play greater than 0.014 inch, perform the actions required by paragraph (h)(2) of this AD.

(2) If the initial measurement is greater than 0.014 inch: Perform the actions required by paragraphs (h)(2)(i) and (h)(2)(ii) of this AD.

(i) Prior to further flight, replace the jackscrew with a new or reconditioned jackscrew, in accordance with Dassault Falcon 2000 AMM 27-510, dated November 1995.

(ii) Prior to the accumulation of 1,000 total flight cycles on the new or reconditioned jackscrew, perform a follow-on measurement of the screw/nut play in accordance with the procedures specified in Dassault Falcon 2000 AMM TR 27-504, dated October 1998.

(iii) If any follow-on measurement required by paragraph (h)(2)(ii) of this AD detects a nut/screw play equal to or less than 0.014 inch, perform the actions required by paragraph (h)(1) of this AD. If any follow-on measurement required by paragraph (h)(2)(ii) of this AD detects a nut/screw play greater than 0.014 inch, perform the actions required by paragraphs (h)(2)(i) and (h)(2)(ii) of this AD.

Alternative Methods of Compliance

(i)(1) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch, ANM-116.

(2) Alternative methods of compliance, approved previously in accordance with AD 99-14-07, amendment 39-11218, are not considered to be approved as alternative methods of compliance with this AD.

Special Flight Permits

(j) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(k) Unless otherwise specified in this AD, the actions shall be done in accordance with Dassault Falcon 2000 Airplane Maintenance Manual Temporary Revision 27-504, dated October 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Dassault Falcon Jet, P.O. Box 2000, South Hackensack, New Jersey 07606. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Note 3: The subject of this AD is addressed in French airworthiness directive 1999-038-008(B) R1, dated September 20, 2000.

Effective Date

(l) This amendment becomes effective on January 6, 2003.

Issued in Renton, Washington, on November 19, 2002.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02-30025 Filed 11-29-02; 8:45 am]

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